

Safety Advisory Committee
August 20, 2010
10:00 AM – 12:00 PM

Minutes

Committee Member	Representing	Present
Anderson, Erik	Materials Sciences Division	X
Bello, Madelyn	Human Resources Advisor	
Blodgett, Paul M.	Environment, Health and Safety Division	X
Cademartori, Helen	Information Technology Division	
Carithers, William	Physics Division	
Christensen, John N.	Earth Sciences Division	X
Earnest, Thomas N.	Physical Biosciences Division	
Floyd, Jim	Safety Advisory Committee Chair	X
Fujikawa, Brian	Nuclear Science Division	X
Ji, Qing	Accelerator & Fusion Research Division	X
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Lunden, Melissa	Environmental Energy Technologies Division	
Martin, Michael C.	Advanced Light Source Division	
More, Anil V.	Office of the CFO Advisor	
Patterson, Pam	Public Affairs Advisor	
Pollard, Martin	Genomics Division	X
Taylor, Scott E.	Life Sciences Division	X
Tucker, Eugene	Facilities Division	X
Thomas, Patricia M.	Safety Advisory Committee Secretary	X
Walter, Howard	Computing Sciences Directorate	
Wong, Weyland	Engineering Division	X

Others Present: Joe Dionne, David Kestell, Mike Kritscher, Peter Lichty, Don Lucas, Bob Mueller, Tim Roberts, Scott Robinson

Chairman's Comments – Jim Floyd

- **Material Sciences Division Peer Review** – The final report was scheduled to be presented to the Division Director on August 20. There will be a presentation to the Safety Advisory Committee, possibly in September.
- **Safety Culture** – The committee has been working on translating DuPont terminology and personnel categories into the LBNL system. They are working with Public Affairs on a communication plan for the survey rollout. A steering committee meeting is scheduled for next week.
- **Electrical Work Authorizations** – Keith Gershon has been working with the Engineering and Advanced Light Source (ALS) Divisions to develop a “qualifications card” system. Robert Candelario is developing the first one. There are concerns about the low progress of electrical work authorizations. Materials Sciences is developing an Activity Hazards Document (AHD).

Engineering Division thinks that the AHD is not the right tool; however, they agree that it is important to define the skills and qualifications of workers. They have been looking at needs and requirements in Nuclear Science Division. They want to be able to document individual qualifications. Bob Mueller commented that the “qual card” will apply to all electrical technicians, and there will be training and procedures for specific equipment. The work authorization should describe the work, hazards, and equipment. Scott Taylor asked how Divisions would manage standard operating procedures. ALS has a very formal procedures system, but not all Divisions do. The “qual card” will describe an approved range of work. Formal procedures will be needed for work exceeding the hazard level. We need to figure out how we are going to do this. It may be similar to the Lockout/Tagout procedures. There were questions about who will approve the procedures – is Subject Matter Expert approval required? The objective is to provide an authorization that is more specific than an AHD, and more general than a task-by-task work permit. Jim Floyd proposed that we have a more thorough discussion next month. The policy issues need to be discussed with Jim Krupnick and EHS management. LBNL has been working on this issue for two years and very few electrical work authorizations have been approved. Jim Floyd asked Qing Ji what the Accelerator and Fusion Research Division (AFRD) is doing. Most AFRD AHDs have an electrical hazard schedule, but it may be an earlier version. Lockout/Tagout (LOTO) procedures are uploaded to the AHDs. There are two draft “electrical AHDs”, but they are not making much progress. Don Lucas wants to discuss the status of the electrical work authorizations within EHS before discussing at the next SAC meeting.

- **Transportation of hazardous materials** is an issue of concern. Jim Floyd said that ALS had a problem with shipment of dry nitrogen dewars in the past and were threatened with the possibility of fines from the Federal Aviation Administration. This got their attention. SAC should be involved in developing the policies. An inspector also showed up at Life Sciences Division asking questions.

Environmental Health and Safety (EHS) Issues – Don Lucas

Transportation of hazardous materials -- Don Lucas discussed the 5 recent Occurrence Reports for improper on-site transport of hazardous materials. There was a new incident Monday at Environmental Energy Technologies Division. Facilities shipping personnel are catching the errors before materials go off-site. An administrative assistant was given a package with a Material Safety Data Sheet (MSDS) attached and told to prepare it for shipment as “not hazardous”. There have been problems with items being sent to salvage with chemicals inside with the paperwork marked non-hazardous. The people preparing materials for shipment are either confused about the requirements or lack knowledge of the materials they are shipping. The Department of Transportation (DOT) regulations are complex, and the shipping workers are not DOT experts. We may need a better inspection checkpoint system. The regulations are confusing to researchers because they are allowed to take chemicals to another lab on site to work with the chemicals under the “material of trade” exemption, but they are prohibited from taking the same materials to

shipping, because that is part of the transportation chain. The DOT definition of “hazardous” is not well understood. If researchers create a new substance, they must develop an MSDS for it before it can be shipped off-site. If the hazards are not known, it should be assumed to be hazardous. Many businesses have central shipping/receiving offices and do not comply strictly with the regulations; however, LBNL is under a higher level of scrutiny than businesses. It is also true that researchers, administrators, and other people that don’t have DOT training cannot go down to shipping and pick up their materials when orders come in. This can be very frustrating to researchers in a hurry to get their materials. Sometimes shipping personnel have made special trips to deliver materials, but they can’t always do this. There are cameras at the shipping dock, and some people have been observed dropping off or picking up hazardous materials that they are not authorized to transport. There is an investigative committee that will suggest corrective actions. The new electronic point-and-ship system includes certification that there are no hazardous materials. Training is required before people are authorized to use the point-and-ship system. One problem may be that the administrative assistants are the only people in some groups who have been trained to use point-and-ship, and they may not be aware of the hazards of the materials they are asked to prepare for shipment. There have also been problems with incorrect packaging and labeling. One person attempted to return a package of chemicals labeled “dangerous when wet” with a “no hazards” certification. There have been problems with mislabeled shipments from Sigma Aldrich, where the contents did not match the label or the materials ordered. Vendors should include MSDSs with packages. There were comments that there may not be enough information on the Transportation website to guide people preparing items for shipment. The investigation committee will report to Jim Krupnick. SAC would like to be involved in developing corrective actions.

Electrical recurring ORPS – There have been 5 events in the last year of unexpected discovery of electrical energy related to construction projects. Doug Fleming invited Health, Safety, and Security auditor participation in the investigation and Pat Williams was assigned. This issue is receiving high visibility throughout the Department of Energy (DOE) complex.

Vehicle accident – A security officer was seriously injured in the Donner Lab parking lot by attempting to stop a vehicle from rolling. The most likely cause is the parking brake not being set properly. There was a fatality at Lawrence Livermore (LLNL) that appeared to have a similar cause. There have been several similar near misses. DOE is very concerned and considered conducting an external Type B investigation. Berkeley Site Office asked for a waiver to allow LBNL to investigate. DOE can impose a reduction in fee as a penalty. Don Lucas conducted an informal “extent of condition” by looking at government vehicles parked on site and found about half of them did not have the parking brake set. This is a vehicle code violation. There have also been a lot of reports of people driving or riding bicycles through stop signs lately.

Safety Coordinator Issues—Weyland Wong

- The LBNL Traffic and Pedestrian Safety Subcommittee is currently inactive.
- The recurring electrical safety Occurrence Report (ORPS) is the second one for LBNL.
- The survey/inspection program for electrical equipment not certified by a Nationally Recognized Testing Laboratory (NRTL) achieved a 90% goal last year, but then efforts dropped. Resources were provided to Divisions to help with the survey last year. We should be continuing on to 100% and ensuring that new equipment that is purchased or brought in is checked. Procurement looks at requisitions for equipment >\$50K value. We can't always find NRTL equipment that meets our needs and there are warranty restrictions that make testing difficult. Jim Floyd drafted some key questions that are being sent to Keith Gershon.
- There is an Occupational Safety and Health Administrations (OSHA) requirement to provide Personal Protective Equipment (PPE) training. An on-line course (EHS0161) was created. It was intended primarily for non-research personnel. EHS tried to use Job Hazard Analysis (JHA) Work Groups to roll out the requirement. Emails were sent out to over 900 people telling them that they have a new training requirement. The requirements in "qualification" Work Groups can't be opted out by Work Leads. There was confusion about whether the class is "required" or "recommended". It is not clear who is authorized to establish training requirements. There should be a policy about this.
- The Division Safety Coordinator Subcommittee meeting minutes are posted on the SAC website. SAC members are invited to look at the meeting minutes.

EHS Issues Pipeline – Jim Floyd commented that the SAC has been waiting for 3 months for the EHS Director to provide information about the pipeline of policies scheduled for development. LBNL has already claimed credit for developing this process as an HSS Corrective Action.

Exposure Assessment—Tim Roberts

The HSS audit identified the need for improving exposure assessment of non-radiation hazards. Industrial hygienists do quantitative assessment, such as air sampling, and qualitative screening, such as looking at use data. Corrective actions completed to date include developing a plan to manage lead paint flaking at the ALS, identifying applicable standards, and establishing a User Group. A benchmarking study determined that LBNL does <50% of the number of air samplings as similar organizations. The plan is to use a graded approach to prioritize the needs. Carcinogens, sensitizers, and respirator wearers are considered likely priorities. Each Division will have priorities established. In the long term, exposure assessment will be integrated with the Work Planning and Control system. The existing database is inadequate. An improved tracking and scheduling system is needed. PUB-3000, Section 4.18 has been revised to describe the exposure assessment program. We should expect another revision in about a year with more details. Industrial Hygienists will be working with Division Safety Coordinators to implement the exposure assessments. As the assessments are completed, there is the potential for finding some

overexposures, which would require ORPS reports. They will be looking at methylene chloride use throughout LBNL. The Chemical Management System and waste stream information are also sources of information about potential exposures.

Welding – Joe Dionne

Joe Dionne has responded to SAC members' comments in the e-room. The proposed requirements have a simplified approach. Job Hazards Analyses (JHAs) cover low-risk activities. Engineering and Facilities Division policies and procedures are cited for high-risk welds. Science Divisions mostly perform low-risk procedures. A 2006 FCOG report found problems at another Lab and LBNL must answer their request to look at our welding program. The safety of the weld is a different issue from the safety of the welding process. Joe Dionne asked for feedback from the Committee by next week.

Access Control – Don Lucas

There was a presentation to the Radiation Safety Committee. Don Lucas will meet with Information Technology in the afternoon to discuss the software development. The software is not ready yet. There will be a meeting next week about roles and responsibilities. There may be some funding available from Security. They are planning to use the same software system that has been used on x-ray machines, and there have been some problems with it. The management of the software has been an issue.

Jim Floyd asked for a discussion of roles and responsibilities. The problem will not be simple. Howard Walter chairs the subcommittee and schedules meetings. Jim Floyd wants to meet with Jim Krupnick and discuss concerns about the slow progress of the system.

There was a question about plans for the Potter Street labs. There is no set path forward, other than for radiation hazard areas. There were questions about new and remodeled buildings. Wiring is being installed in new buildings, but not the card key readers. There was limited time to install wiring for the Bldg. 74 remodel. Some of the new labs have open floor plans, and there are also labs in high bays without walls between experiments. There are questions about how to assign training requirements for these spaces. There are at least four different groups working on different aspects of the access control system, and there has been confusion about their roles. There are questions about continuing support for the equipment after it is installed.

There was a question about access to the warehouse in Richmond. There are crime problems in the neighborhood and bullet holes have been found in the roll up door and walls. This raises questions about personnel safety. The problem was being discussed with Lab Management. Access is being limited while a task force looks for a new warehouse location.

The meeting was adjourned at 11:50 AM

Respectfully submitted, Patricia M. Thomas, SAC Secretary